ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

PRELIMINARY ASSESSMENT

EXECUTIVE SUMMARY

TO: Colleen Hart, U.S. EPA

FROM: Craig G. Raben, FIT

DATE: September 18, 1991

SUBJECT: Griffin Wellpoint Corporation, (aka Griffin Dewatering Co.) Hammond, Indiana; IND016366213/R05-8605-06/FIN0530PA

From 1967 to present, Griffin Wellpoint Corporation (Griffin) site has been an active construction company located at 3450 Calumet Avenue, Lake County, Hammond, Indiana, that specializes in removing impurities from groundwater (dewatering). The site is located in a highly industrialized area.

This 8-acre site is divided into two sections. The back forty section is used to store old well construction equipment and rusted, empty drums. This area is vegetated by weeds and grass. The operations section of the site consists of a garage or work shed, storage tanks that contained diesel fuel, and a storage area for feedstocks. Feedstocks include oil, paint, paint thinner, and degreaser, which are stored in 55-gallon drums; no wastes are produced from use of the feedstocks.

On September 10, 1980, U.S. EPA investigated the site and observed 290 empty drums and 16 open drums that were full or partially full, stored in the back forty storage section. Only one full drum was labeled; its contents were identified as ethylene glycol. Many of the empty drums were completely rusted out. During the investigation, Mr. Hockberger (manager of the site), stated that the fuller drums pre-

viously contained paint, fuel oil, or antifreeze. He also stated that the contents of the fuller drums had become too diluted with rainwater and were stored as unusable product.

A minor chemical spill occurred in the operations part of the facility on April 14, 1986, when an employee left a garden hose on overnight while mixing a solution of one (1) part Carb-Gon (automotive parts cleaner) and two (2) parts water. The solution overflowed onto the floor of the storage area; approximately 200 gallons of the solution was spilled into a floor drain, which drains into a ditch in front of the site. The ditch is connected to a drainage system that eventually empties into the Indiana Harbor Canal, approximately 2 1/2 miles east of the site. The company pumped 7,100 gallons of discolored water from the ditch into empty tanks that were then stored on-site for later use. No samples of spilled material were collected.

On June 4, 1991, Ecology and Environment, Inc./Field Investigation Team (FIT), conducted an off-site reconnaissance inspection of the Griffin site. FIT observed approximately 20 drums stored on a holding rack behind the feedstock area. Piles of rusted equipment were located in the feedstock area, which was surrounded by a fence with a gate. FIT observed stressed vegetation adjacent to the ditch in front of the site.

The site overlies a highly permeable subsurface with a high water table, but migration to groundwater is unlikely due to the small amount of waste spilled into the soil. The groundwater within 4 miles of the Griffin site is not used for drinking purposes. Residences within a 4-mile radius obtain water from surface water intakes on Lake Michigan. The closest surface water intake is the Whiting Intake, located approximately 7 1/2 miles from the site.

There is a potential for migration to occur to the surface water and fisheries through the ditch located in front of the site. Any substances that flow into the floor drain will flow into the ditch and into the drainage system that empties into the Indiana Harbor Canal. A wet-

lands area is located approximately 1/2 mile from the site. However, because no overland migration pathway was observed, the probability of substances migrating to this wetlands is low.

Three homes are located within 200 feet of the site; approximately 40 employees work on-site. There is a potential for direct contact to occur.

No odors associated with the site have been reported, the site is well vegetated and there has been no observed release of hazardous substances into the air. Therefore, the probability of substances to migrate in the form of windblown particulates is low.

7310:10

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MEMORANDUM

TO: Colleen Hart, U.S. EPA
FROM: Craig A. Raben, FIT
DATE: September 18, 1991
SUBJECT: Griffin Wellpoint Corporation (aka Griffin Dewatering Co.)
Hammond, Indiana; IND016366213/R05-8605-06/FIN0530PA

During a United States Environmental Protection Agency (U.S. EPA) inspection of the Griffin Wellpoint Corporation site in Hammond, Indiana conducted on September 10, 1980, the site operator, Mr. Hockberger, stated that the company would clean up the drums in the yard and dispose of them in a responsible manner. On June 4, 1991, Ecology and Environment, Inc./Field Investigation Team (FIT) conducted an off-site reconnaissance inspection of the site. FIT believes complete clean-up did not occur because during this inspection approximately 20 drums and a number of piles of rusted equipment were observed.

FIT recommends that the Griffin site proceed to the screening site inspection level with medium priority because of the potential for contaminants to migrate to surface water via the ditch in front of the site and through the drainage system. Also, there is a high potential for direct contact to occur via soil exposure for the residents living adjacent to the site and the approximately 40 employees who work on-site.

7310:10

PA Scoresheets

IN | IND016366213

SITE LOCATION

SITE NAME (Legal, common or descriptive name of site): Griffin Wellpoint Corp. (AKA: Griffin Dewatering Co.)

STREET ADDRESS, ROUTE or SPECIFIC LOCATION IDENTIFIER: 3450 Calumet Ave.

CITY	STATE	ZIP CODE	TELEPHONE
Hammond	IN	46320	(219) 931-1662

COORDINATES: LATITUDE and LONGITUDE: 41° 39' 30".0 Lat. & 87° 30' 33".0 Long.

TOWNSHIP, RANGE, and SECTION: T. 37N. R. 10 W. section #13

OWNER/OPERATOR IDENTIFICATION

OWNER	OPERATOR
Griffin Dewatering Corp.	Griffin Dewatering Corp.
OWNER ADDRESS: 500 Windingbrook Dr.	OPERATOR ADDRESS: 3450 Calumet Ave.
CITY: Glastonbrary	CITY: Hammond
STATE: CT. ZIP CODE: 06033 TELEPHONE: ( ) N/A	STATE: IN ZIP CODE: 46320 TELEPHONE: (219) 931-1662

TYPE OF OWNERSHIP

- [■] PRIVATE
- [ ] FEDERAL: Agency name: _____
- [ ] STATE
- [ ] COUNTY
- [ ] MUNICIPAL
- [ ] OTHER: _____
- [ ] NOT SPECIFIED

OWNER/OPERATOR NOTIFICATION ON FILE

- [■] NONE
- [ ] CERCLA 103 C, UNCONTROLLED WASTE SITE DATE: _____
- [ ] RCRA 3001 DATE: _____

SITE STATUS	YEARS OF OPERATION	APPROXIMATE SIZE OF SITE
[■] ACTIVE	BEGINNING YEAR: 1967	8 Acres
[ ] INACTIVE	ENDING YEAR: Current	
[ ] UNKNOWN	[ ] UNKNOWN	

SITE EVALUATION

AGENCY / ORGANIZATION: Ecology and Environment

INVESTIGATOR: Craig A. Raben

CONTACT: Harry Atkinson (IDEM) (317)

ADDRESS: 111 W. Jackson Blvd., 12th floor Chicago, Illinois

TELEPHONE: (312) 663-9415

DATE: August 19, 1991

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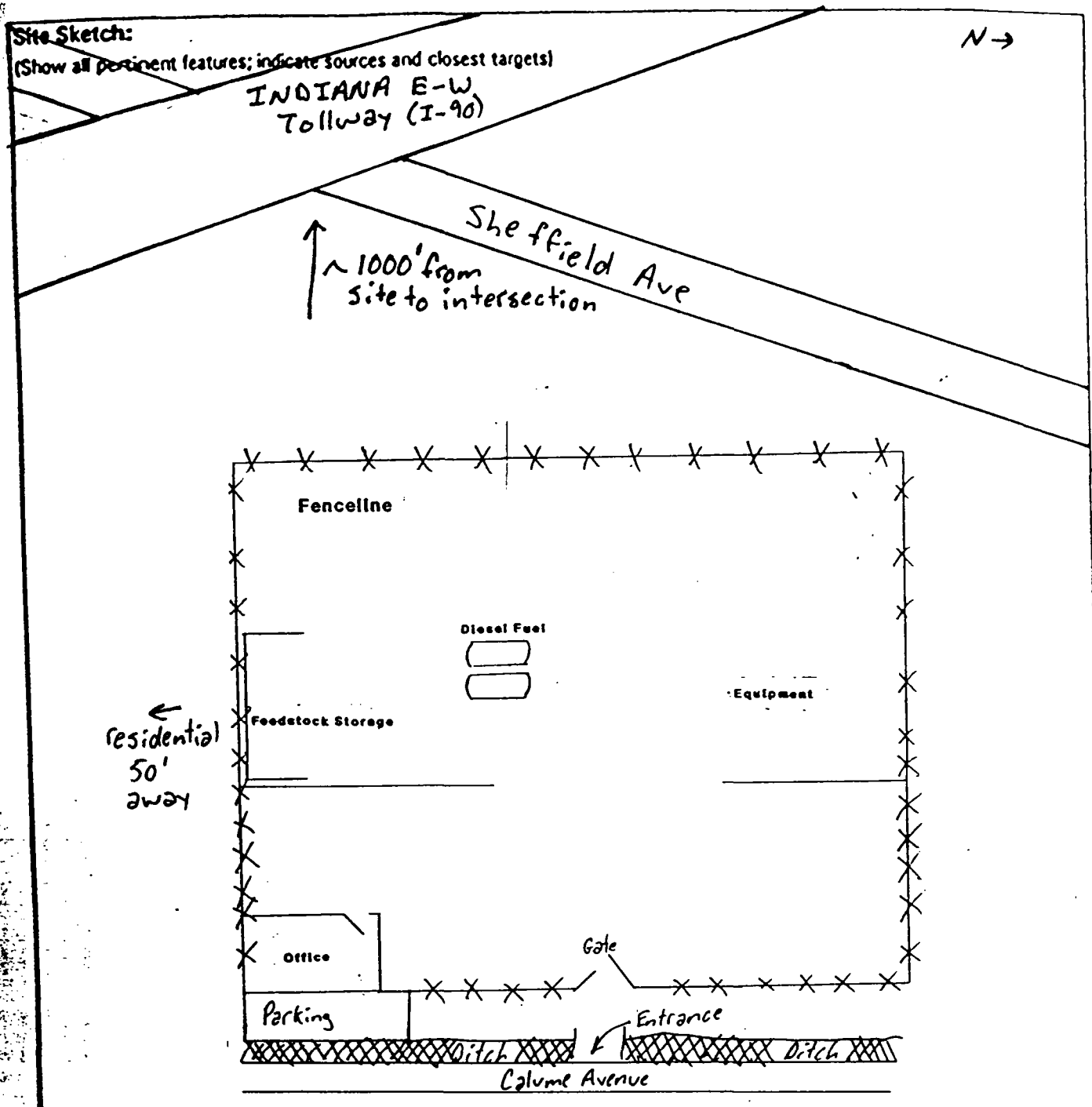
GENERAL INFORMATION (continued)

Site Sketch:
(Show all pertinent features; indicate sources and closest targets)



(3, 9, 10, 11, 12)

Griffin Wellpoint Corp.
Aug 19, 91

Site Description and Operational History:

Griffin Wellpoint AKA Griffin Dewatering Co. is an active construction company located in Hammond, Indiana that specializes in dewatering groundwater. The company consists of an office connected to a garage where all maintenance is handled. The 3 acre site is divided into two parts. The "back forty" yards is a fairly wooded area that contains old well equipment and rusted empty drums emitting no fumes trackable with HNU. On 9/10/86 a picture was taken during a potential hazardous waste site investigation that showed a spot of dead vegetation possibly from soil contamination in the area of the barrels. In this area there are 290 empty drums and 16 full or partially full drums. Only 1 full drum had a label on it marked Ethylene glycol. Many of the empty drums had completely rusted out. During the investigation, Mr. Rockberger, (manager of the facility), stated that the empty drums used to contain paint, fuel oil, or antifreeze. He also stated that the fuller drums were those that had become too diluted with rainwater and were stored back there as useable product.

The operations part of the facility consists of a garage/work shed, diesel fuel tanks and a storage area for feedstocks. The feedstocks include oil, paint, paint thinner, and degreaser. They are stored in 55-gallon drums, numbering seven at most at one time. No wastes are produced from use of the feedstocks.

The company had one minor chemical spill on 4/14/86. An employee left a garden hose on overnight while making a solution of one part Carb-Gon (automotive parts cleaner) and two parts water. The solution overflowed onto the floor and partially collected around a floor drain. The floor drain was immediately plugged upon discovering the incident. The floor drain leads to a ditch in front of the facility. The road ditch contained a small area of discoloration from the water. Approximately 200 gallons of the solution was spilled onto the drain, the other 25 gallons that was on the floor was collected and put in an empty barrel. The facility pumped water from the ditch into empty tanks (7100 gallons). No samples were taken to know whether there were any elevated levels of solution. The ditch is connected to Indiana Harbor Canal. The canal is 2 1/2 miles from the site. An over-land migration of contamination to a surface water body is nearly impossible. (3, 9, 10, 11, 12)

Probable Contaminants of Concern:

(Previous investigations; analytical data)

Feedstocks:

- Paint
- Paint thinner
- Oil
- Degreaser
- Antifreeze (Ethylene Glycol)
- Automotive Parts Cleaner (Carb-Gon) → [methylene Chloride, (cresylic Acid, Aromatic hydrocarbon]

(2, 3)

Griffin Wetland Corp.
Date: Aug 19, 91

GENERAL INFORMATION (continued)

Source Descriptions:

*During an investigation on 9/10/80 a picture was taken that showed a spot of dead vegetation possibly from soil contamination.

*290 empty rusted drums and 16 full or partially full drums are located on site. As of 6/4/91, there were barrels still in the back section of the site.

*On 4/14/86, there was a minor chemical spill to a drain that led into a ditch in front of the facility.

(2,3)

Waste Characteristics (WC) Calculations:
(See PA Table 1, page 5)

		WQ
Drums ≤ 1000	⇒	18
Contaminated Soil ≤ 78 acres	⇒	18

$WQ_{Total} = 36$; Therefore WC = 18

WC = 18

NOV 06 1990

Date: Griffs - Wellpoint Corp. Aug 19, 91

PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		WC = 18	*WC = 32*	*WC = 100*	Formula for Assigning Source WQ Values
CONTAINMENT	N/A	≤100 lbs	>100 to 10,000 lbs	>10,000 lbs	*lbs + 1*
WASTESTREAM	N/A	≤500,000 lbs	>500,000 to 50 million lbs	>50 million lbs	*lbs + 5,000*
VOLUME	Landfill	≤6.75 million ft^3 ≤250,000 yd^3	>6.75 million ft^3 to 675 million ft^3 >250,000 to 25 million yd^3	>675 million ft^3 >25 million yd^3	*ft^3 + 67,500* *yd^3 + 2,500*
	Surface impoundment	≤6,750 ft^3 ≤250 yd^3	>6,750 ft^3 to 675,000 ft^3 >250 to 25,000 yd^3	>675,000 ft^3 >25,000 yd^3	*ft^3 + 67.5* *yd^3 + 2.5*
	Drums	≤1,000 drums	>1,000 to 100,000 drums	>100,000 drums	*drums + 10*
	Tanks and non-drum containers	≤50,000 gallons	>50,000 to 5 million gallons	>5 million gallons	*gallons + 500*
	Contaminated soil	≤6.75 million ft^3 ≤250,000 yd^3	>6.75 million ft^3 to 675 million ft^3 >250,000 to 25 million yd^3	>675 million ft^3 >25 million yd^3	*ft^3 + 67,500* *yd^3 + 2,500*
	Pile	≤6,750 ft^3 ≤250 yd^3	>6,750 ft^3 to 675,000 ft^3 >250 to 25,000 yd^3	>675,000 ft^3 >25,000 yd^3	*ft^3 + 67.5* *yd^3 + 2.5*
AREA	Landfill	≤340,000 ft^2 ≤7.8 acres	>340,000 to 34 million ft^2 >7.8 to 780 acres	>34 million ft^2 >780 acres	*ft^2 + 3,400* *acres + 0.078*
	Surface impoundment	≤1,300 ft^2 ≤0.029 acres	>1,300 to 130,000 ft^2 >0.029 to 2.9 acres	>130,000 ft^2 >2.9 acres	*ft^2 + 13* *acres + 0.00029*
	Contaminated soil	≤3.4 million ft^2 ≤78 acres	>3.4 million to 340 million ft^2 >78 to 7,800 acres	>340 million ft^2 >7,800 acres	*ft^2 + 34,000* *acres + 0.78*
	Pile*	≤1,300 ft^2 ≤0.029 acres	>1,300 to 130,000 ft^2 >0.029 to 2.9 acres	>130,000 ft^2 >2.9 acres	*ft^2 + 13* *acres + 0.00029*
	Land treatment	≤27,000 ft^2 ≤0.62 acres	>27,000 to 2.7 million ft^2 >0.62 to 62 acres	>2.7 million ft^2 >62 acres	*ft^2 + 270* *acres + 0.0062*

1 ton = 2,000 lbs = 1 yd^3 = 4 drums = 200 gallons

* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	*WC Score*
>0 to 100	18
>100 to 10,000	32
>10,000	100

Griffin Wellpoint Corp.
Aug 19, 91

GROUND WATER USE DESCRIPTION

Describe Ground Water Use Within 4-miles of the Site:

(Provide generalized stratigraphy; information on aquifers, municipal, and or private wells)

For general the groundwater within 4-miles of the Griffin Wellpoint site is not used for drinking purposes. The cities of Burnham, IL.; Chicago, IL.; East Chicago, IN; Hammond, IN; Whiting, IN; and Calumet City, IL all lie completely or partially within 4-miles of the site. The majority of the populations in all of these cities obtain there water from surface water intakes in Lake Michigan.

The groundwater aquifer probably used in the site area is the Calumet Aquifer. The only known well in the site area is 330 feet deep drawing its water from limestone bedrock. The well is located at Post #1 Toll Plaza on Indiana Toll Road I-90. This is less than 1-mile from the site, approximately half way between the Illinois-Indiana state line and Wolf Lake. The well is not used for drinking purposes.

The Calumet Aquifer consists of unconsolidated glacial deposits of the Calumet Lacustrual Plain. These deposits range in thickness from approximately 40 to 170 feet. The soil in the region consists of fine to medium sands with scattered deposits of organically rich silt. The soil is of the Oakville - Tawas association. Below the unconsolidated deposits lies limestone bedrock of Devonian and Silurian ages. The depth to bedrock in the Griffin Wellpoint site area is approximately 107 feet. The water table is approximately 15 feet below the surface in the area. The base flow of the Grand Calumet and Little Calumet rivers is from the Calumet Aquifer. (1,2,4,5)

Show calculations of ground water drinking water populations:

People within a 4-mile radius of the site get their drinking water from various surface water intakes in Lake Michigan.

(1,2,3,4,5)

Griffin Wellpoint Ref.
Aug 19, 91

This chart provides guidelines to assist you in hypothesizing the presence of a suspected release and identifying primary targets. It is expected that not all of this information will be available during the PA. As so, these criteria are not all-inclusive, but any other criteria you use to hypothesize a suspected release or to identify primary targets. This chart will record your professional judgment in evaluating these factors.

The "Suspected Release" section of the chart guides you through evaluation of some site, source, and pathway conditions to help hypothesize whether a release from the site is likely. If a release is suspected, use the "Primary Targets" section to guide you through evaluation of some conditions that will help identify targets likely to be exposed to hazardous substances. You may use this section of the chart more than once, depending on the number of targets you feel may be considered "primary." In the "Primary Targets" section on this sheet, record the responses for the well that you feel has the highest probability of being exposed to hazardous substances.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

GROUND WATER PATHWAY

SUSPECTED RELEASE

Yes	No	Unknown	
■	□	□	Are sources poorly contained?
□	■	□	Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?
□	■	□	Is waste quantity particularly large?
□	□	■	Is precipitation heavy and infiltration rate high?
□	■	□	Is the site located in an area of karst terrain?
□	□	■	Is the subsurface highly permeable or conductive?
□	□	■	Is drinking water drawn from a shallow aquifer?
■	□	□	Are suspected contaminants highly mobile in ground water?
□	■	□	Does any circumstantial evidence of ground water or drinking water contamination exist?
□	■		Other criteria? _____
□	■		**SUSPECTED RELEASE?**

PRIMARY TARGETS

Yes	No	Unknown	
□	■	□	Is any drinking-water well nearby?
□	□	■	Is any nearby drinking-water well closed?
□	■	□	Has foul-tasting or foul-smelling water been reported by any nearby drinking-water users?
□	□	■	Do any nearby wells have a large drawdown or high production rate?
□	■	□	Are drinking-water wells located between the site and other wells that are suspected to be exposed to hazardous substances?
□	■	□	Does any circumstantial evidence of ground water or drinking water contamination exist?
□	■	□	Does any drinking-water well warrant sampling?
□	■		Other criteria? _____
□	■		**PRIMARY TARGET(S) IDENTIFIED?**

Summarize the rationale for suspected release (attach an additional page if necessary):

Contamination is unlikely due to the small amount (if any) of liquid spilled both onto the soil or into the ditch (surface water).

(3)

Summarize the rationale for Primary Targets (attach an additional page if necessary):

Groundwater is not used for drinking purposes in a 4-mile radius of the site.

(1, 3, 4, 5)

Griffin Wellpoint Corp.
Aug 19, 91

Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes ___ No X
Is the site located in karst terrain?	Yes ___ No X
Depth to aquifer:	~15 ft
Distance to the nearest drinking-water well:	None ft

LIKELIHOOD OF RELEASE

	A Suspected Release	B No Suspected Release	References
1. **SUSPECTED RELEASE:** If you suspect a release to ground water (see page 7), assign a score of 550, and use only column A for this pathway.	(550)		
2. **NO SUSPECTED RELEASE:** If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.		(500 or 340) 500	1,3
LR =		500	

TARGETS

	A	B	References
3. **PRIMARY TARGET POPULATION:** Determine the number of people served by drinking water from wells that you suspect have been exposed to hazardous substances from the site (see Ground Water Pathway Criteria List, page 7). ____ people x 10 =			1
4. **SECONDARY TARGET POPULATION:** Determine the number of people served by drinking water from wells that you do NOT suspect have been exposed to hazardous substances from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes ___ No ___ If yes, attach a page to show apportionment calculations.		0	1
5. **NEAREST WELL:** If you have identified any Primary Targets for ground water, assign a score of 50; otherwise, assign the highest Nearest Well score from PA Table 2. If no drinking-water wells exist within 4 miles, assign a score of zero.	(50, 20, 18, 8, 5, 3, 2, or 0)	(20, 18, 8, 5, 3, 2, or 0) 0	1
6. **WELLHEAD PROTECTION AREA (WHPA):** Assign a score of 20 if any portion of a designated WHPA is within ¼ mile of the site; assign 5 if from ¼ to 4 miles.	(20, 5, or 0)	(20, 5, or 0) 0	1
7. **RESOURCES:** A score of 5 is assigned.	(5) 5	(5) 5	
T =		5	

WASTE CHARACTERISTICS

	A	B
8. A. If you have identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32)	
B. If you have NOT identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4.	(100, 32, or 18)	(100, 32, or 18) 18
WC =		18

GROUND WATER PATHWAY SCORE: $\frac{LR \times T \times WC}{82,500}$ = 0.55

Site Name: Griffin Wellpoint Corp
Date: Aug 19, 91

* PA table 2a not used in scoring since there are no drinking water wells within 4 miles of the site.

PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	Population Value
0 to ¼ mile	_____	20	1	2	5	16	52	163	521	1,633	5,214	16,326	_____
>¼ to ½ mile	_____	18	1	1	3	10	32	101	323	1,012	3,233	10,121	_____
>½ to 1 mile	_____	8	1	1	2	5	17	52	167	522	1,668	5,224	_____
>1 to 2 miles	_____	5	1	1	1	3	9	29	94	294	939	2,938	_____
>2 to 3 miles	_____	3	1	1	1	2	7	21	68	212	678	2,122	_____
>3 to 4 miles	_____	2	1	1	1	1	4	13	42	131	417	1,306	_____
Nearest Well =											Score =		

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	Population Value
0 to ¼ mile	_____	20	1	2	5	16	52	163	521	1,633	5,214	16,326	_____
>¼ to ½ mile	_____	20	1	1	3	10	32	101	323	1,012	3,233	10,121	_____
>½ to 1 mile	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
>1 to 2 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
>2 to 3 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
>3 to 4 miles	_____	20	1	1	3	8	26	82	261	816	2,607	8,162	_____
Nearest Well =											Score =		

* PA table 2b not used in scoring since the depth to the aquifer is less than 70 feet.

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Griffin Wellpoint Corp.
Aug 1991

SURFACE WATER PATHWAY
MIGRATION ROUTE SKETCH

Provide a Sketch of the Surface Water Migration Route:
(include runoff route, probable point of entry, 15-mile target distance limit, intakes, fisheries, and sensitive environments)

* See attached map for 15-mile surface water routes

(9, 10, 11, 12)